November 4, 2009

**MEMORANDUM**

TO: Interim Education Committee, Utah State Legislature

FROM: John Sutherland, Chair
Technology Initiative Advisory Board

SUBJECT: Engineering, Computer Science and Technology 2009-2010 Funding Recommendation from the Technology Initiative Advisory Board

## Background

The 2001 Legislature approved SB61: *Enhancements to the State Systems of Public and Higher Education*. This legislation established an Engineering and Computer Science Initiative within the USHE, which was intended to increase the number of students graduating from engineering, computer science, and related technology programs. During the last eight years, the Engineering and Computer Science Initiative has been successful in increasing the number of graduates in these areas within the Utah System.

The Technology Initiative Advisory Board (TIAB), appointed by the Governor, was established to make recommendations concerning the funds to the Regents. During the 2009 Legislative session, $2,000,000 of one-time funds was appropriated to the initiative for distribution for the 2009-2010 academic year. Key provisions of SB61 and a list of the TIAB members are included in the attachment.

After carefully considering the current needs of the Engineering and Computer Science programs at the USHE institutions, the TIAB made the following recommendation concerning the 2009-10 one-time funding which were approved by the Board of Regents at their July 17, 2009 meeting.

The goal of the Engineering and Computer Science Initiative has been to increase the number of engineering and computer science graduates in the State of Utah. Based on the assessment by the industry oversight committee, the Engineering Initiative has been one of the most successful legislative efforts of the past decade. With equal participation among industry, higher education and the state, the Initiative has proven to be a model program with strong accountability and demonstrable results. A modest investment of State dollars has made a significant difference for Utah.

- In 2009, 1,307 engineering degrees were awarded compared with 862 in 2000.

- In 2009, 543 computer science degrees were awarded compared with 482 in 2000.

The following table gives a summary of the funding between 2002 and 2010

| Engineering and Computer Science Initiative Funding History | | | |
|---|---|---|---|
| 2002-2010 | | | |
| | Funds Appropriated | | |
| Year | Ongoing | One time | Loan Forgivenes s |
| 2002 | $ 1,000,000 | $ 2,500,000 | $ 500,000 |
| 2003 | $ 2,000,000 | $ 1,000,000 | $ 0 |
| 2004 | $ 500,000 | $ 0 | $ 50,000 |
| 2005 | $ 500,000 | $ 500,000 | $ 0 |
| 2006 | $ 1,500,000 | $ 500,000 | $ 0 |
| 2007 | $ 500,000 | $ 700,000 | $ 0 |
| 2008 | $3,000,000 | $2,000,000 | $ 0 |
| 2009 | $ 0 | $250,000 | $ 0 |
| 2010 | | $2,000,000 | $ 0* |
| **Total** | **$ 9,000,000** | **$ 9,450,000** | **$ 550,000** |

**In 2001, SB 61 established a loan forgiveness fund to assist students in obtaining degrees in engineering and computer science. In 2009, SB105 changed the loan forgiveness program to a scholarship program for the purpose of recruiting, retaining, and training engineering and computer science and related technology students. The scholarships will be distributed to the institutions by formula and each institution will award the scholarships according to institutional policy.*

For 2009-2010 year, the Legislature appropriated $2,000,000 in one-time funds for the initiative. The TIAB considered the needs of the USHE institutions and recommended these funds be used to enhance program offerings. The TIAB recommended that the 2009-2010 funds be distributed to the institutions as follows:

| USHE Engineering and Computer Science Initiative Funding Distribution | | |
|---|---|---|
| | 2009-2010 | |
| | Ongoing | One Time |
| University of Utah | $ 0 | $920,000 |
| Utah State University | $ 0 | $520,000 |
| Weber State University | $ 0 | $150,000 |
| Southern Utah University | $ 0 | $85,000 |
| Snow College | $ 0 | $20,000 |
| Dixie State College | $ 0 | $20,000 |
| College of Eastern Utah | $ 0 | $20,000 |

| | | |
|---|---|---|
| Utah Valley State College | $ 0 | $200,000 |
| Salt Lake Community College | $ 0 | $65,000 |
| **TOTAL** | $ 0 | **$2,000,000** |

Attachment

Key provision of SB61:

1. Establishing a goal through the Initiative to double the number of graduates from USHE institutions in engineering, computer science, and related technology by 2006 and triple the number of graduates by 2009.
2. Directing the Board to establish rules providing the criteria for those fields of study that qualify as “related technology.”
3. Providing a component, which improves the quality of instructional programs in engineering, computer science, and related technology, by providing supplemental monies for equipment purchases ($2.5 million).
4. Establishing a student scholarship to encourage enrollment in programs included in the Initiative.
5. Assisting USHE institutions to hire and retain highly qualified faculty to teach in Initiative programs.
6. Increasing program capacity by funding new and renovated capital facilities, and funding for new engineering and computer science programs.
7. Creating a Technology Initiative Advisory Board to make recommendations to the Regents in its administration of the Initiative. The Advisory board is to include individuals appointed by the Governor from business and industry who have expertise in the areas of engineering, computer science, and related technologies.

Members of the Technology Advisory Committee

| | |
|---|---|
| John Sutherland (Chair) | Brigham Young University |
| Susan Johnson (Co-Chair) | Futura Industries |
| Richard Anderson | Hewlett Packard, Retired |
| Reed Brown | Matchbin, Inc. |
| Roland Christensen | Applied Composite Technology |
| D. Mark Durcan | Micron Technology |
| Ed Edstrom | vSpring |
| Dave Moon | EsNet |
| Chuck Taylor | Metalcraft Technologies |
| J. Howard VanBoerum | VanBoerum & Frank |